

Jesse Eaton

Machine Learning Scientist

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San Francisco, CA

New York, NY

Machine learning scientist with 5 years' experience writing algorithms, extracting high importance signals, and building novel machine learning model architectures at \$1B+ startup.

Experience

Senior Machine Learning Scientist, Freenome

September 2019 - Present

- Developed core machine learning model increasing classification performance of colorectal cancer detection to industry high of 0.9 sensitivity at 0.9 specificity
- Designed important features with high signal to noise in genomics data
- Promoted iterations of important models by developing framework for model comparison
- Streamlined user model reports by redesigned reporting and model diagnostic infrastructure
- Managed ML science intern leading to development of robust kmer model pipeline

Machine Learning Research Engineer, Qeexo

February 2018 - April 2019

- Generated multiple experimental company products by fusing sensor data with efficient machine learning classifiers
<https://www.youtube.com/watch?v=1S6irWy8G20>
- Compressed gradient boosting classifier to 20 kB size for highly time/space/energy constrained environments achieving < 5ms classification time
- Increased customer awareness by demoing projects at Consumer Electronics Show 2019

Software Systems Engineer, MITRE

September 2015 - August 2016

- Built web based electronic medical validation tool for Health Services Department as main engineer using Amazon Elastic Compute Cloud (AWS)

Education

M.S. Computational Biology, Carnegie Mellon

September 2016 - December 2017

- GPA: 3.91, Courses: machine learning, statistics, simulation, regression, computational genomics, automation of biology, cancer biology

B.S. Biomedical Engineering, Tufts University

September 2011 - May 2015

- GPA: 3.45, Courses: genetics, algorithms, quantum chemistry, medical imaging, machine programming and assembly, drug delivery, tissue engineering

Skills

Languages

Python Expert
C++ Advanced
C Advanced
Golang Intermediate

Machine Learning

Sklearn Expert
XGBoost Advanced
Pytorch Intermediate

Math

Algorithms Expert
Probability Advanced
Statistics Advanced
Regression Advanced

Other

Genomics Advanced
Gcloud Intermediate

Leadership and Awards

Culture Leader, Freenome, January 2022

- Nominated as one of 10 company culture leaders for exemplifying Freenome's values

Patent for signal discovery, Freenome, April 2020

- Discovered novel RNA signal relating to 11 sets of specific miRNAs by building classifiers for colon cell proliferative disorders